

FIG. 1C

inventor: MINO et al.
Docket No.: 10873.876US01
Title: ALIGNED FINE PARTICLES, METHOD FOR PRODUCING THE SAME AND DEVICE USIVE SAME
Statorney Name Interpretation of the Same Interpreta

FIG. 2A

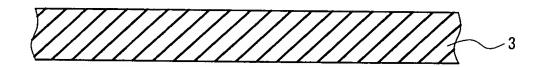
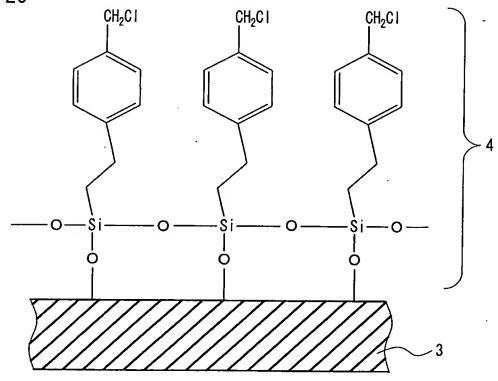


FIG. 2B

FIG. 2C



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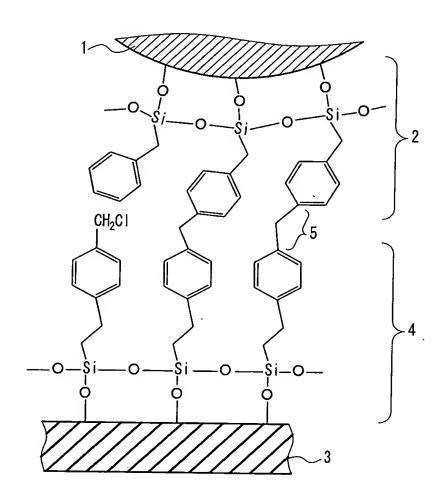
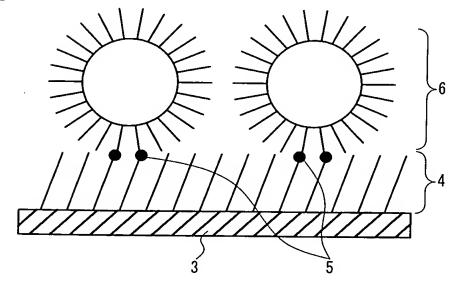


FIG. 3B



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DEVICE THE SAME

Attorney No.: 612.371.5237

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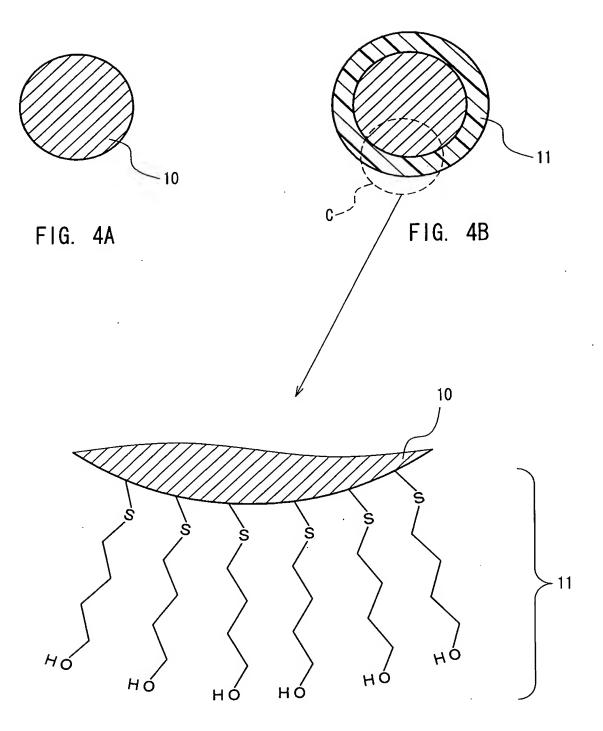
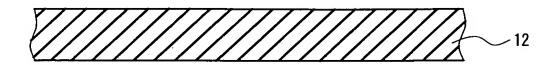


FIG. 4C

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FIG. 5A



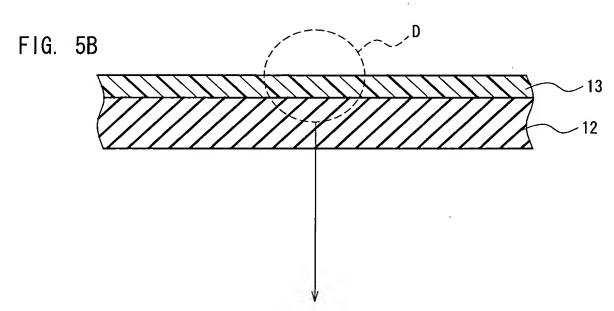
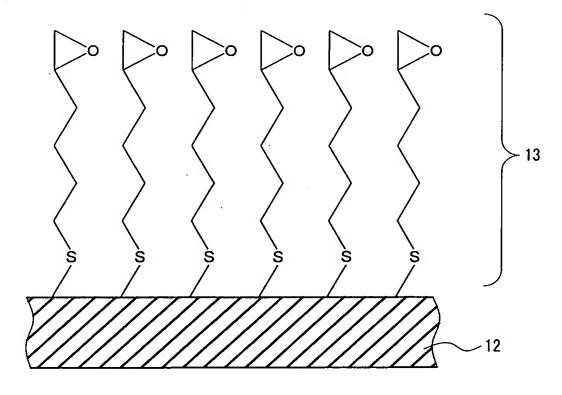


FIG. 5C



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FIG. 6A

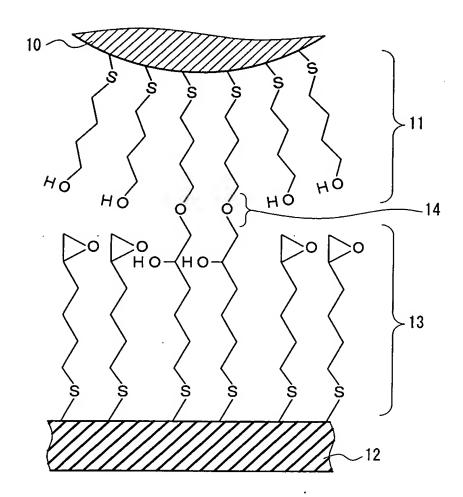
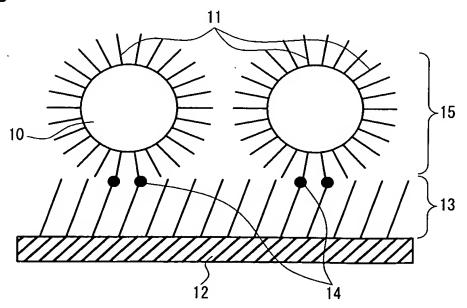


FIG. 6B



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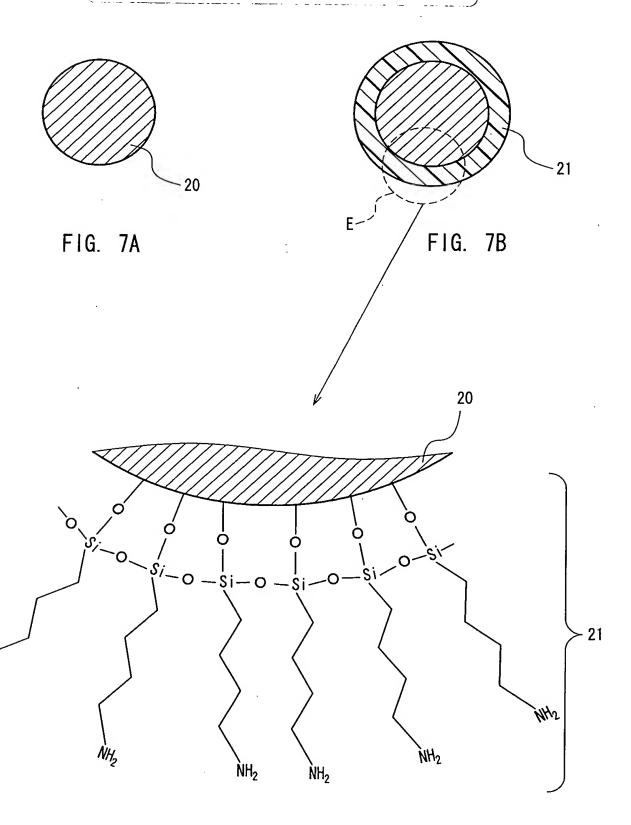


FIG. 7C

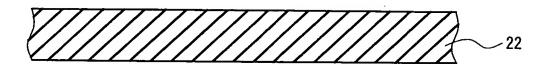
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FIG. 8A



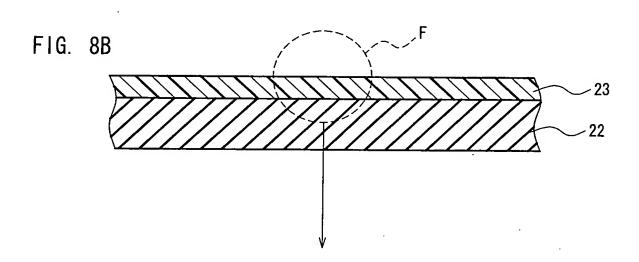
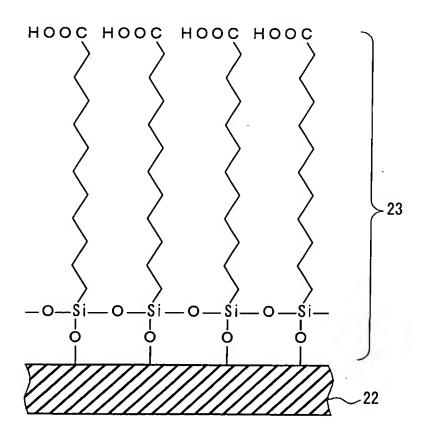


FIG. 8C



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FIG. 9A

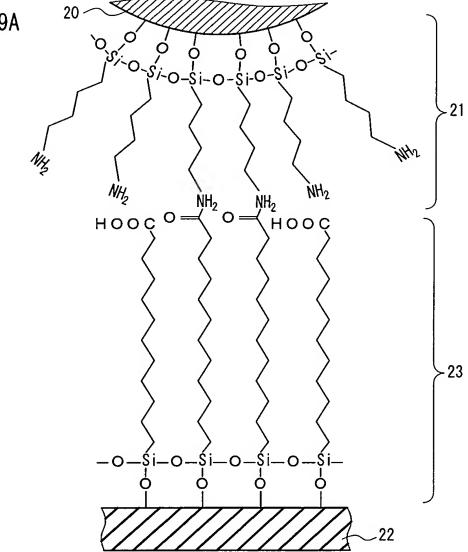
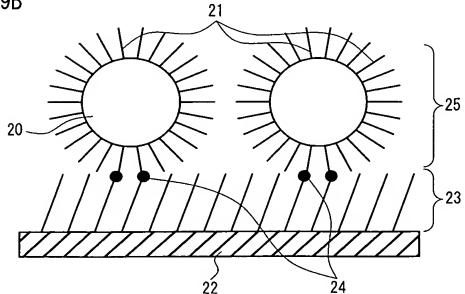


FIG. 9B



nventor: MINO et al.

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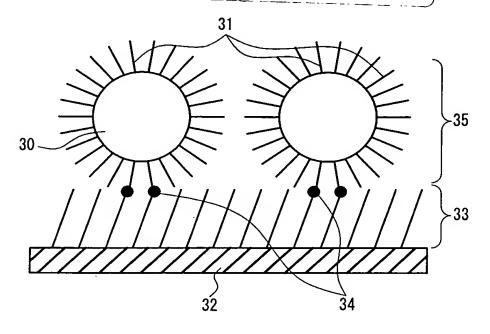


FIG. 10A

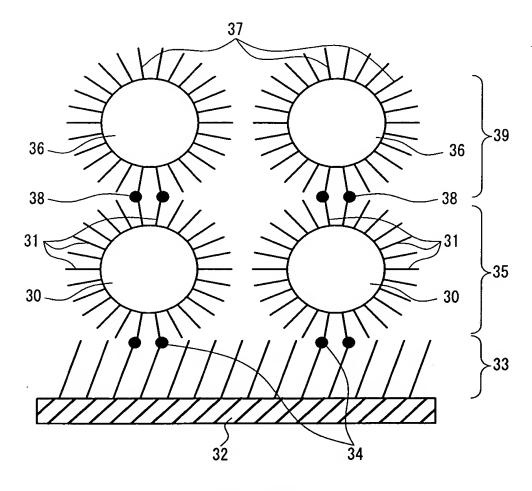


FIG. 10B

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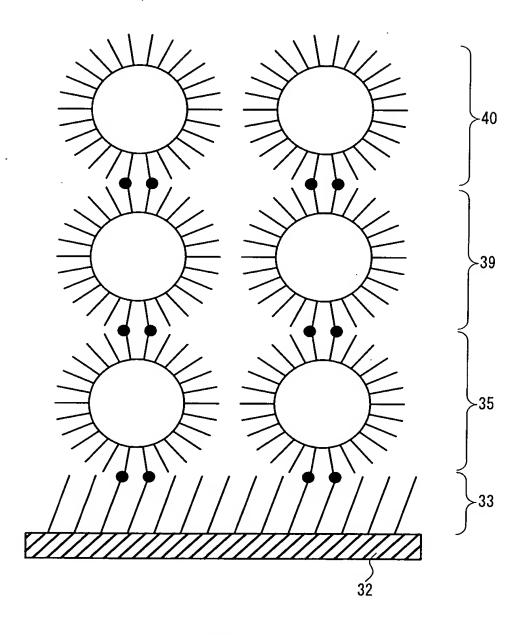


FIG. 11

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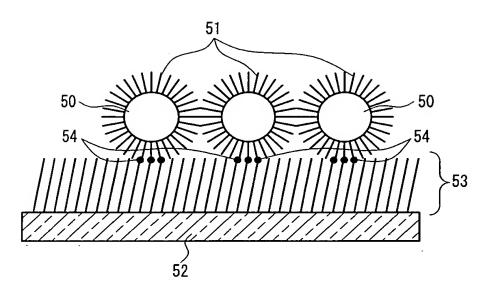


FIG. 12

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FIG. 13A

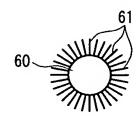


FIG. 13B

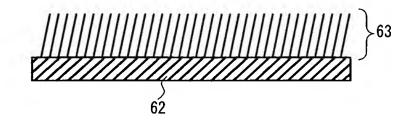


FIG. 13C

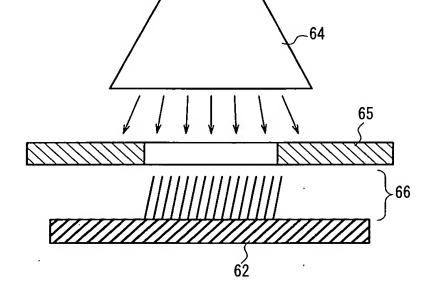
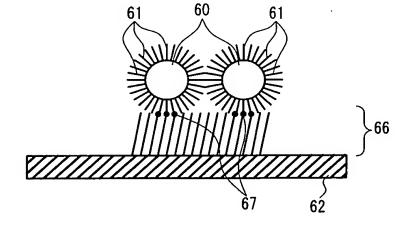


FIG. 13D



inventor: MINO et al.

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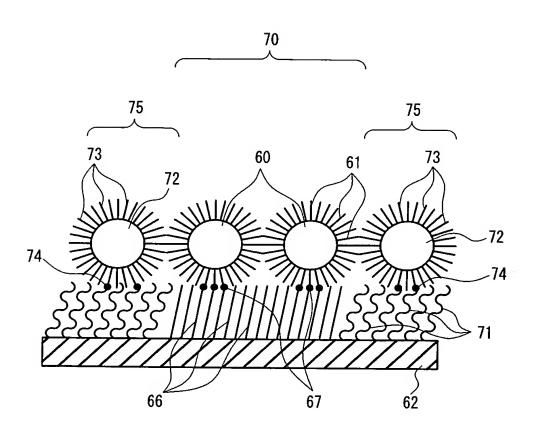


FIG. 14

nventor: MINO et al.
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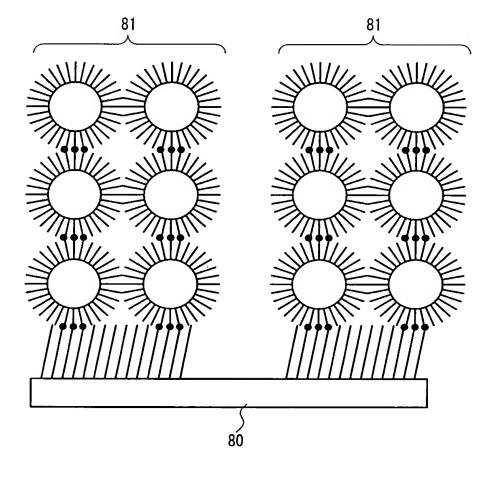


FIG. 15

Inventor: MINO et al.
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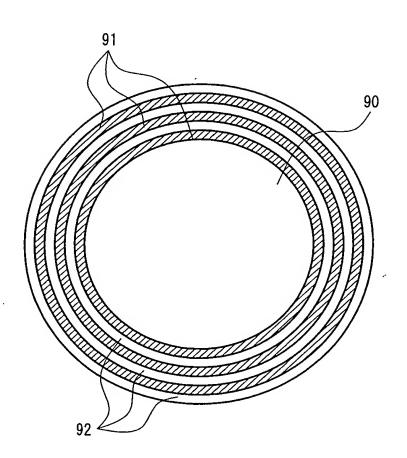


FIG. 16

nventor: MINO et al.
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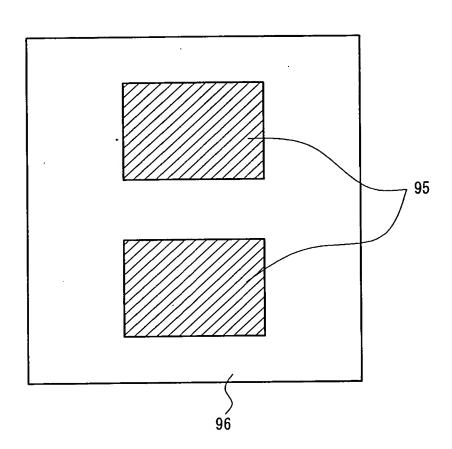


FIG. 17

inventor: MINO et al.

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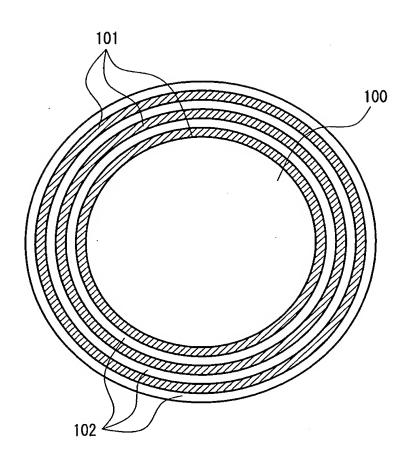


FIG. 18

nventor: MINO et al.
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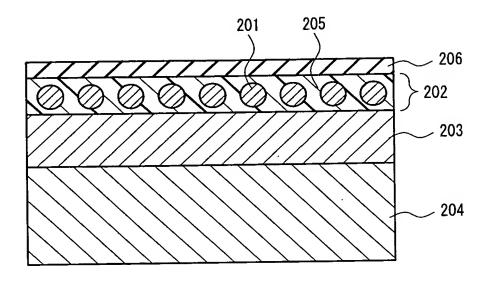


FIG. 19A

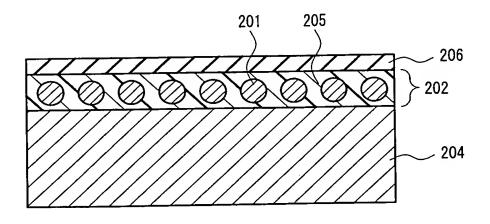


FIG. 19B

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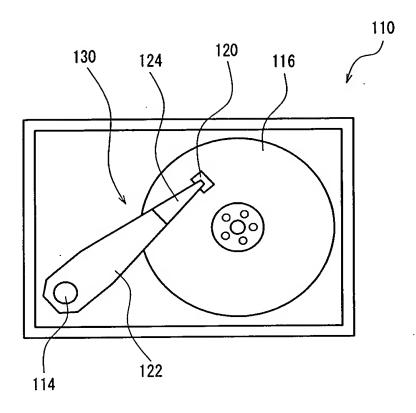


FIG. 20A

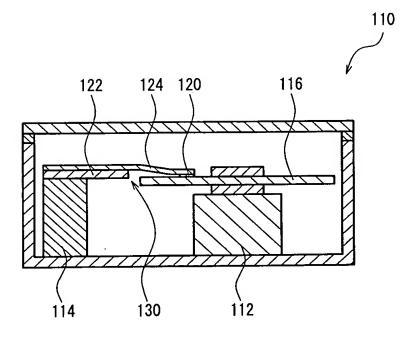


FIG. 20B

Inventor: MINO et al.

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LE PARTICLES, METHOD FOR PRODUCING THE SAME AN DEVICE USIN E SAME
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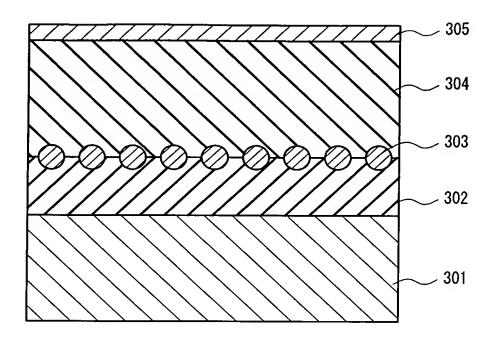


FIG. 21

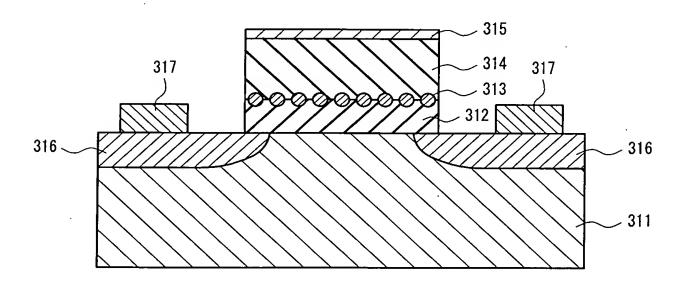
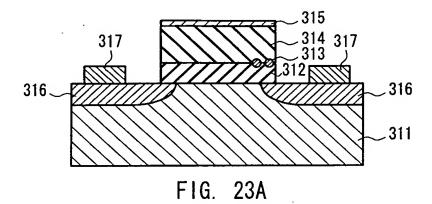
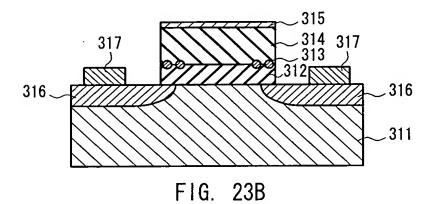
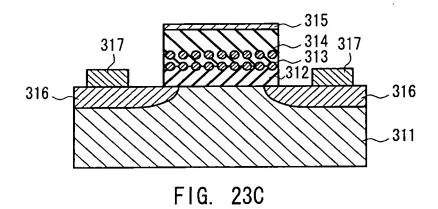


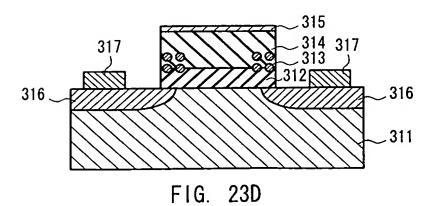
FIG. 22

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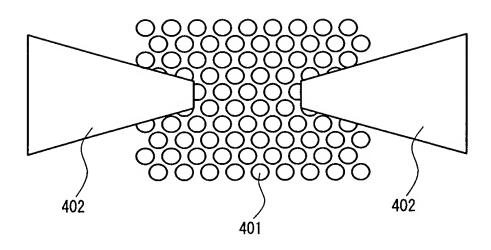


FIG. 24

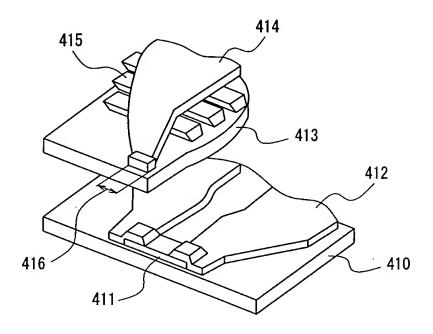


FIG. 25

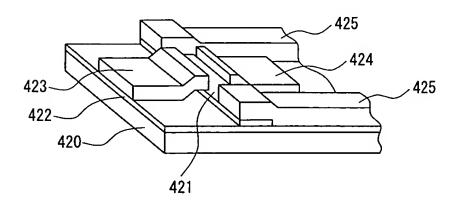


FIG. 26

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amino group and - CICO group reaction system

$$R_1 - NH_2 + R_2 - COCI \rightarrow R_1 \stackrel{0}{\nearrow} R_2$$

hydroxyl group and - ROSi group reaction system

$$R_1 - OH + R_2 \longrightarrow SiR_3 \longrightarrow R_1 \longrightarrow SiR_3$$

benzyl group and - amino group reaction system

$$R_1 \longrightarrow CH_2CI + H_2N \longrightarrow R_2 \longrightarrow R_1 \longrightarrow R_2$$

benzyl group and - phenyl group reaction system

$$R_1$$
 \longrightarrow $CH_2CI +$ \longrightarrow $R_2 \longrightarrow R_1$ \longrightarrow R_2

aldehyde group and - amino group reaction system

$$\begin{array}{c} 0 \\ \parallel \\ C \\ \downarrow H \end{array} + R_2 \longrightarrow NH_2 \longrightarrow R_1 \stackrel{H}{\longrightarrow} N \stackrel{L}{\nearrow} N \stackrel{R_2}{\longrightarrow} N$$

loossey oleco

phenyl group and alkyl group reaction system

$$R_1 \longrightarrow R_2 \longrightarrow R_1 \longrightarrow R_2$$

phenyl group and CICO group reaction system

$$R_1 \longrightarrow OH + R_2 \longrightarrow COCI \longrightarrow R_1 \longrightarrow R_2$$

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benzyl group and - benzaldehyde group reaction system

$$R_1$$
 \longrightarrow $CH_2CI + OHC$ \longrightarrow R_1 \longrightarrow R_1 \longrightarrow CHO

isocyanate group and - amino group reaction system

isocyanate group and - hydroxyl group reaction system

$$R_1$$
— NCO + R_2 — OH $\rightarrow R_1$
 C
 N
 R_2

epoxyl group and - amino group reaction system

$$R_1 \xrightarrow{OH} + H_2N - R_2 \rightarrow R_1 \xrightarrow{OH} NR_2$$

carboxyl group and - hydroxyl group reaction system

unsaturated binding group and - halogen group reaction system

$$R_1$$
 R_2 R_2 R_1 R_2

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FIG. 29

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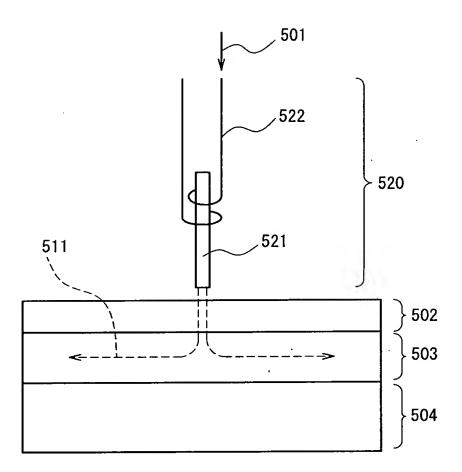


FIG. 30

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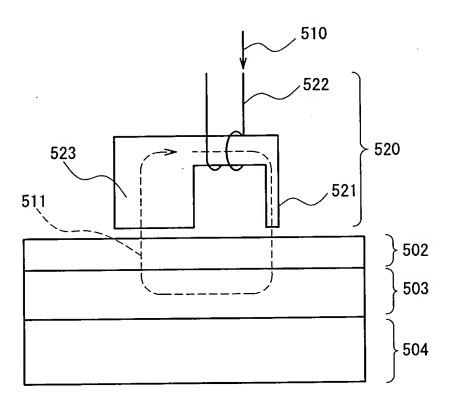


FIG. 31

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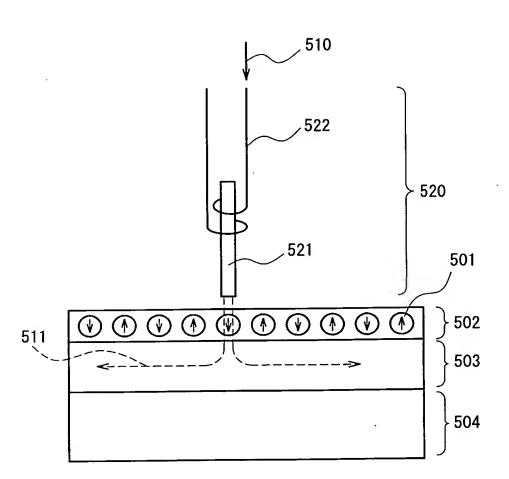


FIG. 32

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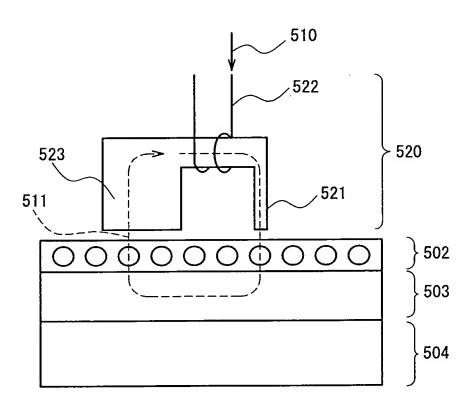
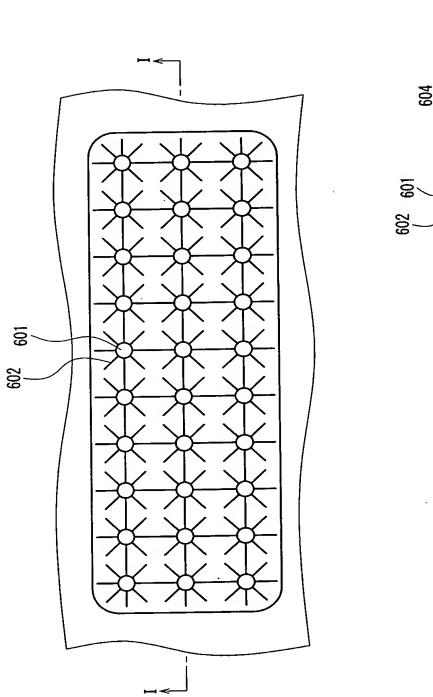
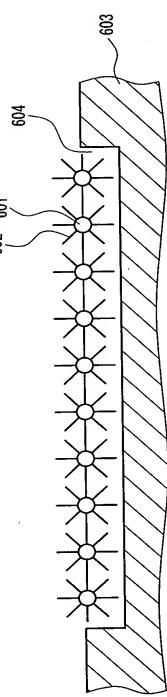


FIG. 33

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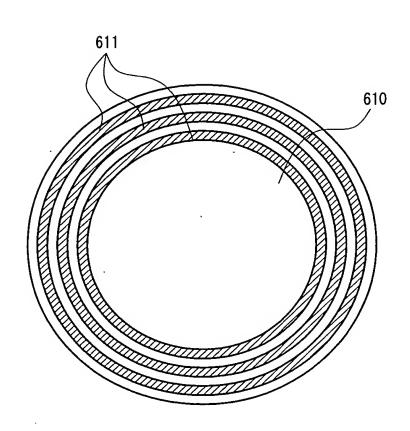


FIG. 35

FIG. 36A

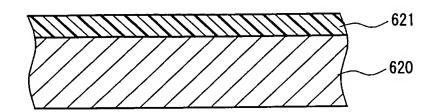


FIG. 36B

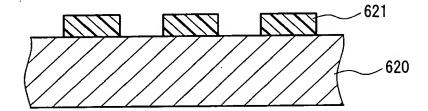


FIG. 36C

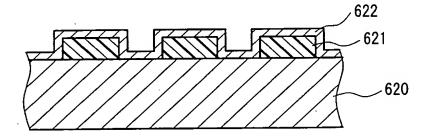


FIG. 36D

